PT. SINKO PRIMA ALLOY

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DAFTAR ISI

I. INTRODUCTION

Pocket Fetal Doppler SONOTRAX-C is designed to help hear and measure the fetal heart rate, when movement is detected, the waves bounce back, creating a pattern, which can be recorded and played back. The device is equipped with a high-resolution color LCD to display the fetal heartbeat signal, which integrates with time display and menu setting functions. Here are some features of Fetal Doppler SONTORAX-C:

➢ Portable and easy to operate
➢ Real time
➢ Three mode display: real-time, average, and manual
➢ Changeable probe with variety of frequncy
➢ Alarm system
➢ Memory and review
➢ Can be connected to computer
➢ Equipped with speaker and headphone
➢ Auto power-off when not used in 1 minute
➢ Two 1.5V battery that works >8 hours of device usage

II. UNIT PARTS AND DISPLAY

SPEAKER

BATTERY

LCD

VOLUME

MENU BUTTON

TOMBOL POWER

PROBE SOCKET AND USB

PROBE

PLAY/STOP BUTTON

HEADPHONE SOCKET

- Power   : turn on/ off the unit
- Play/Stop   : start/ stop the monitoring of heart rate
- Menu   : setting of language, date, time, and review
  - Menu options:
    1. Language

       Setting language (English & Chinese)

    2. Date

       Setting day, month, and year

    3. Time

       Setting time

    4. Review

       Review monitoring record

    5. Exit

       Exit setting

- Socket Probe & USB: Connect to probe/ USB
- Volume   : Setting volume

III.   GENERAL OPERATIONS

Operations to measure and obtain FHR value :

1. Open battery cover, install 2 AA batteries (watch carefully the pole, do not install in the wrong direction), install probe by connecting to its socket.
2. Turn on the unit by pressing the power button.
3. Search fetus position: Feel the fetus position using hand. Spread ultrasound gel to probe surface and mother skin, place the probe in best position to obtain fetal heart with optimum audio and signal. Adjust the volume as needed.
4. Examine the FHR and graphic by looking at LCD display.
5. Power off: Continously press power button for 3 seconds to turn off the unit.

PERHATIAN: Place the probe in the best detecting position to get a better detecting effect. Do not place the probe in a position which has strong Placental Blood Sound (PBS) or Umbilical Sound (UMS). If the expectant mother adopts a horizontal position and the fetal position is normal, place the probe on midline position of the lower navel to get the clearest FHR sound

Software Installation Process:
1. Insert CD driver to CD-ROM in your computer
2. Open Windows Explorer
3. Enter to CD folder
4. Select Auto Play by clicking two times
5. Follow the instruction
6. Click Finish when installation has done
   Note :
   For software installation, below is system configuration needed :
- CPU: Pentium PIII, Celeron 900 or above
- Memory: Above 138 MB
- Mainboard: Mainboard with Intel chip is highly reccommended
- Hard disk: 10 GB or above
- Display chip: Above 16 MB storage
- Operation system: Microsoft windows 2000/XP/Vista/7 (Windows XP reccommended)
  For further detail, refer to operating procedure.

IV. TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
Model	SONOTRAX-C
Display	2" Inch
Probe	Waterproof USB 2-8 MHz (optional)
Range	50-210 bpm
Resolution	1 bpm
Accuracy	± 3 bpm
Power output	0,5 W
Probe	Working frequency: 2 MHz ± 10%

		$Iob < 20\ Mw/cm^2$
		$Ispta < 100mW^2$
		Ultrasonic Output Power : P <20 Mw
Efective area		$< 157\ mm^2$
Mode		Real-time, average, and manual
Dimension		135mm (P) x 95mm (L) x 30mm (T)
Weight		230gr
Working	Temperature	5 ~ 40°C
	Humidity	≥80%
	Atmosphere	86-106 KPa

V. ACCESSORIES

Manual Book

AA

AA Batteries

Ultrasound Gel

Software CD
Driver

Probe

USB Data Cable

VI. MAINTENANCE AND TROUBLESHOOTING

- The probe is a fragile device and must be handled with care.
- The gel must be cleaned from the probe after the probe is used, this is to support the service life of the device.
- Before cleaning, turn off the device and remove the battery from the device. Keep the outer casing clean and away from dust and dirt. Clean with a soft, dry cloth, then wipe with a small amount of clean solution using a cloth for the outer casing and the surface of the probe. Do not use strong solvents such as Acetone during the cleaning process.
- When cleaning the device and probe using 70% alcohol, it is necessary to wipe with a cloth to remove any remaining moisture

If the following problems arise when using the device, please solve them as below:

Problems	Causes	Solutions
Weak audio	Weak Volume	Increase volume
	Low power/ battery	Change battery
	Incorrect probe position	Search for optimal position
	Insufficient gel applied	Apply sufficient gel to probe and skin
Noise	Probe too close to main unit	Place probe and main unit in proper distance
	Outer signal distortion	Avoid outer signal that may distract
Download failed	PC and unit connection is not good	Check connection
	Unit turned off	Turn on unit
	No cases data (no FHR record) in unit	Obtain FHR data and re-download case
Failed to review report	No file/ case open	Open the selected case

	Deleted case	Click "Update Database" in "Case Manage"
Failed to print	Komputer is not connected to printer or driver is not installed	Re-install driver printer according to computer specification.
	Broken driver printer	
Display software is not fullscreen	Low resolution	Adjust display resolution to 1024x768 or higher resolution

VII. ATTENTION

Pocket Fetal Doppler SONOTRAX-C, internally powered device and shock protection grade (electric shock) is Type CF protection. Type CF means that the component connections to which it is applied must comply with the permissible leakage currents of IEC 60601-1 dielectric strength.

⚠ Do not use tinner or gas to clean the unit.

⚠ Do not store unit in humid place, extereme heat, and area prone to flammable gas.

⚠ Avoid direct sunlight.

⚠ Do not store in place that may cause vibration.

⚠ Place the unit in safe, avoid danger of falling, or hit by other things.

⚠ Do not store in area that contain gas or may cause corrosion.

⚠ Take off battery when unit will be stored in a long time.

VIII. WARRANTY AND AFTERSALES SERVICE

Elitech's liability under this warranty is limited to repairing all or part of the units at Elitech's inspection to prove that they are within the warranty period. If the product is not working during the warranty period, we will repair or replace it free of charge. Warranty void if:

1. Problems are caused by misuse, negligence, accident or transportation.
2. Open, modify, or repair by unauthorized party other than manufacturer
3. Replace or delete serial number or label.

If you have questions about usage, maintenance, technical specifications or device malfunctions, please contact your local distributor or Elitech service department.

APPENDIX

OVERALL SENSITIVITY

Diameter Target Reflector	Jarak (d)	Reflection Loss A	Two-way Attenuations $B = \sum B_a + B_w$					Bw	B	Vs(r.ms.)	Vn(r.m.s)	C	Overall sensitivity
	(mm)	(d)		$\sum B_a$						mV	mV	dB	dB
1.58 A=45.7dB @2Mhz	50	45.7	T	20	4.8	4	-	0	5.76	186	94	5.93	109.2
			Ba	40	9.6	8	-						
	75	45.7	T	20	4.8	3	-	0	56.4	175	90	5.78	107.8
			Ba	40	9.6	7	-						
	100	45.7	T	20	4.8	3	-	0	56.4	174	89	5.82	107.9
			Ba	40	9.6	7	-						
	200	45.7	T	20	4.8	-	-	0	49.6	173	90	5.68	100.9
			Ba	40	9.6	-	-						
2.38 A=43.2dB @2Mhz	50	43.2	T	20	4.8	3	2.2	0	60.8	178	89	6.02	110
			Ba	40	9.6	7	4.4						
	75	43.2	T	20	4.8	3	1	0	58.4	170	90	5.52	107.1
			Ba	40	9.6	7	2						
	100	43.2	T	20	4.8	3	-	0	56.4	165	85	5.76	105.3
			Ba	40	9.6	7	-						
	200	43.2	T	20	4.8	1	-	0	51.6	160	85	5.49	100.2
			Ba	40	9.6	2	-						

POCKET FETAL DOPPLER
SONOTRAX C

MANUAL BOOK

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TECHNOVISION